Intellectual Capital Management
Kellogg STRT 441 - 70

Winter Quarter offering 2018   Syllabus version 2

When/ Where: Monday 6 PM to 9 PM
Room 250, Wieboldt

Course Description: This course covers the broad agenda of using intellectual capital for competitive advantage. With globalization, intangible assets such as human capital, intellectual property, brands and relationships have become the dominant proportion of a firm's market value. Yet most firms do a poor job of managing this intellectual capital strategically. This course adopts a "lifecycle" approach to the management of an intangible asset covering the creation of the asset, the codification of the asset in the form of intellectual property (IP), the valuation of the assets, leveraging of same into future markets for growth. Case studies examine management challenges in artificial intelligence (AI), entertainment, finance, pharmaceuticals, consumer electronics, agribusiness, consulting, venture capital, telecommunications, software and other contexts. The implications of intellectual property policy and global development are explored. New for 2018, Market Analytics via IP databases and the emergent roles of AI will be explored. THIS COURSE SATISFIES DISTRIBUTION REQUIREMENTS IN MULTIPLE KELLOGG MAJORS INCLUDING Strategy (STRT), KIEI, and HEMA (See instructor about Final Project Choice).

Below is a link to an animation summarizing elements of the Course:

https://www.dropbox.com/s/s1ypcvmb9a2mmjo/IP_%20Innovation_vFinal.mp4?dl=0

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Teaching Style: Intellectual capital management methods and strategies will be introduced through demonstration and discussion in the first half of each class period. Industry specific examples will be investigated through case studies addressing firms in multiple industry contexts. The class discussions and assignments are designed to help us learn from each other. Several speakers from industry will add depth to specific contexts.
Reference Materials: There is no text for this class. The reading list for the course is listed on page 13-14 of this syllabus and is herein referred to as the “Reader”. Note that Reader content is either required ((R) in case pack) or required available online (RO) or suggested ((S) available online via Canvas or NU Library). See page 13 (Reader content) and page 14 (case pack content, all required reading) for clarification. Instructions for accessing online readings at NU library listed at front of case pack and available online in Canvas.

Course Schedule (subject to change): Content/order is subject to change. Note that a “session” in what follows is equivalent to two 1.5 hour sessions as a section 61 or one 3 hour session as a section 31, 91, 81, 71 or 76.

Session/Week #1:

Subjects: Course Introduction.

- Review of course syllabus, teaching method, student responsibilities, deliverables
- Innovation and intellectual assets
- Schumpeter and value creation, the taxonomy
- Sources of Innovation, the Radar
- Intellectual Capital, who, what, where, when, why, how?
- Strategy, Differentiation, and Inimitability
- Secure Forms of ideas: Functional ideas or inventions, Expressions of ideas, Sources of Ideas, Secrets, complexity, and confidential information.
- Forms of Intellectual Property (IP)
- Value Propositions, the Unique Selling Proposition (USP), & IP
- IP Continuum of Protection
- Value Transference
- The Life cycle of an intellectual asset value transference and maximizing the value of an intellectual asset using multiple forms of intellectual property with the brand being the end goal;
- Value Articulation (VA)
- VA and the Blue Ocean Strategy, Three Horizons view of Innovation Strategy
- patents to brands (Dolby), copyrights to brands (Disney and Snow White), trade secrets to brands (Eagle Boys, China Sweet Tea)

Readings/Assignments for Week #1:

1. Form study groups & forward the list to Rishav by end of Week 1. Size of study groups will be determined in 1st class.
2. Review Reader contents # 1 - 7 (see pg. 12 of the syllabus)
3. Watch the three videos about Patents from the Michelson IP page (http://michelsonip.com/intellectual-property-videos/)
4. Read and prepare tools case assignment 1. (Reader contents #8 - 11, assignment 1 online at the Canvas site) and be prepared to present group result in class during initial session of Week #2.
Session/Week #2:

**Subjects: Management of functionally rich innovations with short monopoly lives (inventions, patents)**

- Discussion of the tools Assignment 1 Case, inventions and the competitive dimensions of IP for the resource poor or start up entrepreneurs.
- Innovation and Inventions
- From the Sybarites (BC) to the Venetians (Renaissance) to Adam Smith, Benjamin Franklin, Jefferson, James Madison and the US Constitution, Article 1 Section 8, a system of limited life monopoly rights granted to encourage public disclosure of useful inventions.
- What is patentable? Note this changes with each new wave of technology innovation e.g. information technology, biotechnology, nanotechnology.
- Business Process Patents, Software patents
- Design Patents & Registered Industrial Designs
- Patents and the EPO, USPTO, and the CAFC
- Patent Front Pages and Search Databases.
- Patent Prosecution
- Patents of Invention, provisional, divisional, continuations, continuations in part, abandoned etc.
- Filing Statistics & USPTO history
- Infringement concepts
- Strategies for patent prosecution, continuations, CIP’s, Divisional, Reissues, Re-examinations etc.
- Prosecution of patents for competitive advantage
- Smart Bombs
- Related costs
- Multi-national patent filing strategies

**Readings/Assignments for week #2:**

1. Review Reader contents # 13 – 15 (see pg. 13 of the syllabus)
3. Read and prepare Strawberry case (reader contents # 12, assignment 2 online at the Canvas site) and be prepared to present group result in class in first session of week #3.
Session/Week #3:

Subject: Management of the expression of ideas, Advertising, Software, Media and artistic works

- Discussion of the Innovation in Strawberries case studies
- The Scope of copyright protection.
- What is a copyright and what can be copyrighted?
- The Berne Convention and the international standards and system for copyright security.
- Comparison of patent right of copyright
- Derivative works
- Parity: *The Wind Done Gone* etc.
- Copyright in Media Enterprises
- Infringement of copyrighted works, concepts and reality, vicarious liability
- Tests of infringement: , New Yorker, Hollywood vs Bollywood, Beach boys vs Chuck Berry
- Disney and IP Management, Copyrights to Character Marks, Transference, Translation and Transportation.
- Fair Use of copyrighted works, the five factor test, and international tests for Fair Use.
- Moral rights of creators in international markets.
- Getting beyond the “fogged” uncertainty of required permissions and Creative Commons

Readings/Assignments:

1. Review Reader contents # 16 – 19 (see pg. 13 of the syllabus)
3. Read and prepare Disney case (reader contents # 20, assignment 3 online at the Canvas site) and be prepared to present group result in class in first session of week #4.
Session/Week #4:
Subject: Management of Brands and Source identifiers, Marks, Dress and Cognitive Touchpoints of the user Experience

- Discussion of Disney Case
- Trade Marks, Service Marks Trade Dress, Trade Names in the context of a Brand
- Brand Equity and Proprietary Assets
- Brand Equity and Models
- Innovations in marketing and how we establish Brand identity through sound, smell, sight, and even taste
- Brands, Identity, Meaning and Semiotics, the IP Ecosystem and brand meaning
- Design guides and brand books
- Trademarks and the USPTO, Registration, Madrid system, European TM system.
- The continuum of Trademark Strength and strategies for leveraging same
- Life cycle costs of enforcing a descriptive mark versus a fanciful mark,
- The Descriptive-Distinctive dichotomy in mark selection
- Digital age challenges in TM and Brand Management
- Cyber squatters and Trade name/Trademark-Domain Name Disputes, meta tabs
- The Treaty of Madrid and the Madrid Protocol
- The Evolving nature of brands and source identity communication in a “home” market and multiple international markets.

Readings/Assignments

1. Review Reader # 21 (see pg. 13 of the syllabus)
2. Read and prepare Honey Crisp Case and be prepared to present group result in class in first session of week #5.
Session/Week #5:

Subjects: Building and sustaining competitive advantage through Intellectual Capital

- Discussion of the Honey Crisp Case
- Choosing among the different modes of managing intellectual capital: intellectual property; contract; self-protection
- Brief review of Trade Secrets and utility of confidential information
- The Uniform Trade Secrets Act (US), Confidentiality in EU and BRICS, vulnerability of intangibles vs. tangibles.
- Employment contracts, IP and Trade Secrets
- Moving between equivalent jobs in competing firms and the practical limitations of the theory of inevitable disclosure
- Critical thinking about Trade Secrets in hiring (employer perspective) and career management (employee perspective)
- The continuum of innovation security and intellectual asset protection: from tacit to explicit knowledge
- The boundaries between public and private and among the forms of intellectual property; differing values and property regimes in multiple national contexts.
- Value transference: from one form of intellectual property to another; from one product, or product aspect, to another; from one business to another
- Innovation management in a networked world, proprietary versus open models and the implications for global intellectual capital management

Readings/Assignments

1. Review Reader contents # 22 & 23 (see pg. 13 of the syllabus)

2. Read and prepare The AstraZeneca, Prilosec and Nexium together with case supplement. case (reader contents #22 & 23 assignment 5 online at the Canvas site) and be prepared to discuss. Individual Assignment.
Week #6:
Subject: Innovation and Intellectual Capital Management in the regulated Pharmaceuticals Industry.

- Discussion of AstraZeneca, Prilosec & Nexium KSM Case study
- The domestic and international markets for therapeutics, the Ranbaxy’s, Teva’s and Sandors take on the big Pharma
- The research and development process for innovative therapeutics, from discovery to market entry
- Costs, Risks, and rates of failure
- Regulators (FDA and international equivalents etc) and their role in governing market entry by innovators and imitators (gencrics)
- The role of Patents for compositions, method of manufacture, method of delivery and other inventions
- Hatch Waxman act in the US, Patent term restoration act due to FDA approval delays
- Impact of Direct to Consumer advertising, market effects and FDA regulation thereof
- The Intermediaries: Physicians and the Insurance Companies
- Off label prescriptions
- Orphan Drug Status, Pharmacogenomics: Genzyme and Gauchier’s Disease, Pediatric Studies
- Going over the counter: Case of Zantac
- Cornering the markets for key ingredients
- Introducing own generic to create 1st Mover Advantage in Generics market: Novartis
- Suing the Generics to complicate/delay market entry, Paying the Generics not to produce: Barr Laboratories and BAYER Cipro
- The Indian Generic view of global market opportunities and how IP is used in a global context to attack Big Pharma continuously.

Readings
1. Review Reader contents # 24 & 25 (see pg. 13 of the syllabus)
Session/Week #7
Subject: Guest Speakers addressing IP Assets & Value.

- Case Study: Pregablin, Lyrica & Northwestern University
- The Role of GAP, FASB, IFRS 3 and other international accounting and securities regulations
- Life of Intangibles… could be indefinite
- Traditional Valuation Approaches
  - Market comparables approach
  - Cost approach
  - Income approach
- Litigation Valuation methods
  - Reasonable royalty
  - Royalty rate determinants
  - Georgia Pacific Factors
  - Lost profits basis
- Non-Traditional IP Valuation Methodologies

Readings
1. Review Reader contents # 26 & 27 (see pg. 13 of the syllabus)

Session/Week #8
Subject: Emergent Markets for IP Assets & IP Analytics, Role of Artificial Intelligence

- Emergent marketplaces for IP
  - Ocean Tomo Auctions
  - Patent Board
  - IP ratings mechanisms
  - Perspectives on IP Management from Industrial Multinational Firm Like Caterpillar
  - IP Data & Analytics
    - Strategy
    - Marketing
  - Artificial Intelligence and non human innovators
Session/ Week #9:
Subject: Student presentations of project research

- During this week students will present results of final project research that explore current interests/challenges/opportunities and or topics in intellectual capital management.

Week #10
Subject: Student presentations of project research (cont.) & Course Summary

- The Mystery of Capitalism, Desoto Theory and property infrastructures
- Emerging primacy of innovators and those who invest in innovation
- Challenges of the “fast follower” from emerging economies
- Intellectual Capital and Intellectual Property in a Global Marketplace
- How the “Fuel of interest to the fire of genius”
- WIPO and Intergovernmental organizations of the UN, WTO and forums for proactively managing the competitive playing fields of trade based on intangibles
- Course Review and Summary
- Reminder about Student project final deliverable dates and STRT441 Class participation self-assessment and peer group evaluation.

- Course Evaluation

Readings for Future Interest:

1. Review Reader contents # 28 (all supplemental and not required)
Grading (Below weighting is subject to change):

<table>
<thead>
<tr>
<th>Grade Component</th>
<th>Individual / Group</th>
<th>Weight</th>
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</thead>
<tbody>
<tr>
<td>Class Participation</td>
<td>Individual</td>
<td>20 %</td>
</tr>
<tr>
<td>Case Write-ups/Assignments</td>
<td>Study Group</td>
<td>15 %</td>
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<tr>
<td>Midterm Exam Case study</td>
<td>Individual</td>
<td>30 %</td>
</tr>
<tr>
<td>Final project write-up</td>
<td>Study Group</td>
<td>35 %</td>
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Case Assignments/Study Groups:
Case assignments typically pose a number of questions that should be efficiently addressed in a format specified on the assignment page. You are expected to form study groups of 4-5 students (exact size to be determined in class #1) for discussion of the cases and notify the instructor of your grouping by the end session 1 or as soon as possible by e-mail. We request that you stay in the same study group throughout the course.

Assignment Due Dates: Four case study based assignments w/ deliverables due in weeks 2, 3, 5, and 6 of the quarter. Assignments 1, 2 & 4 are group deliverables. Assignment 5 will be a case based midterm exam that will be an individual assignment. Assignment 3 has no deliverable, but it is a case with some specific assignment questions to prepare for discussion. More on this schedule in week 1 of the quarter.

Midterm Examination
The midterm for this course will be a straightforward exam/Case analysis covering materials discussed in class and addressed in the assigned readings.

Final Project:
This assignment is to be carried out with the members of your study group.

Objectives:
The final project offers an opportunity for student groups to exercise and or integrate the content of the course into an in-depth analysis of state-of-the-art intellectual capital management processes within a specific firm or industry (healthcare, pharmaceuticals, power generation, automotive, retail, consumer durables, etc.) or technology application domain (electro-optics, etc.). The manuscript can take the form or either a white paper or a case study. Examples of past deliverables are available on the CANVAS web site and will be discussed in depth during the first day of class.

Deadlines & Deliverables:
- Deliverables include a final manuscript and a 15-20 minute PowerPoint (exact amount of time allowed determined by class size) presentation to be delivered to the class during week #9 or #10. PowerPoint files must be delivered to the Canvas and by e-mail to Rishav and instructor by end of week #8.
• All final project manuscript deliverables are due in MSWord document format deposited in the Canvas site by **end of week#10**. To deliver the final manuscript in any other format requires explicit permission of the instructor.

**Grading of Final Projects:**

Your grade will be determined based on the quality of your written report and presentation.

A high quality written deliverable is characterized as follows:

- Sound structure, based on a relevant conceptual framework.
- Comprehensive coverage of the relevant issues.
- Consistency and depth of analysis; specific rather than vague.
- Informative and thought provoking figures and tables. In short, the tables and figures should tell the story of your paper.
- Good balance between description, analysis and recommendations. When you draw on other sources, it is important that you not merely 'cut and paste' them into your text, but carefully integrate the underlying reasoning into your analysis.
- Clearly written and well organized.
- Reference and or Footnote EVERYTHING in your paper. Exhaustive and thorough referencing of all information sources with appropriate bibliographic detail and dates accessed for WWW information. Unsupported inferences will be viewed as speculation. All prepared in MSWord Format

A high quality presentation will be clear, informative and balanced in the allocation of time to content. Your objective is to brief your classmates efficiently on your findings. All presentations should be prepared in powerpoint format. Please plan no more than 40 minutes total for presentation and questions.

**Feedback on your Performance in this Course**

I am very willing to help each student group develop and polish the course deliverables. I welcome the opportunity to comment and edit drafts of student work, provided that I am given ample time. Teams or individual students can arrange meetings with me, schedule permitting. Note that for the downtown sections, I will be in my office at Wieboldt Hall Each week at least 1 hour before class begins.

If time permits, we will discuss a proposed schedule of final project interim (ungraded) deliverables to help students prepare and manage their time during the quarter.

**Honor Code**

All students are expected to abide by the *Kellogg Honor Code and ANY OTHER RELATED NU Honor Codes* in undertaking and completing deliverables for the assignments in this course. See Below URL for link to the Kellogg Honor Code:

[http://www.kellogg.northwestern.edu/stu_aff/honor/hcode12.htm](http://www.kellogg.northwestern.edu/stu_aff/honor/hcode12.htm)
Intellectual Property Resources online:

For the passive learners amongst us, there are excellent animations about IP concepts that are made available via the Michelson Foundation. A number of these animations are already referenced in this syllabus. A link to the relevant webpage that hosts the animations is http://michelsonip.com/intellectual-property-videos/

German Patent and Trademark Office: http://www.dpma.de/index.html
United States Copyright Office: http://www.loc.gov/copyright/
WIPO site with helpful tutorials: http://wipo.int/sme/en/multimedia/
WIPO Small Medium Enterprise resources page: http://wipo.int/sme/en/
CAMBIA Initiative for Open Innovation http://www.cambia.org/daisy/cambia/home.html
Google patents beta site http://www.google.com/patents
Free patents online (full pdf of US/EU documents) http://www.freepatentsonline.com
Information about Trademarks & Domain Names: http://ladas.com/expertise/trademarks-brands/
Mark and Brand Licensing newsletters: http://www.adventurepublishinggroup.com/
Guide to Licensing Lexicon: http://www.licensingworld.co.uk/site/articlesmain/id/5/author/Andrew%20Carley
Knowledge Ecology Intl. website on Knowledge Ecosystem: https://www.keionline.org/
Thomas Jefferson on Ideas and Patents: http://www.patentcafe.com/
http://odur.let.rug.nl/~usa/P/tj3/writings/brf/jefl220.htm
Thomas Jefferson on contemporary inventors: http://www.let.rug.nl/usa/P/tj3/writings/brf/jefl77.htm
James Conley Animation Summarizing this Course: https://www.dropbox.com/s/s1ypcvmb9a2mmjo/IP_%20Innovation_vFinal.mp4?dl=0
Intangible Advantage: http://michelsonip.com/intangibleadvantage/
**ICM Course Reading Materials**  
**Winter Quarter Offerings 2018**

(R) = Required Reading in case pack  (RO) = Required Reading online  (S) = Suggested Reading online

1. Initial Course Syllabus v1
2. Twelve ways to Innovate, Sawhney et al article (R)  SMR publication 2006
4. Toward the Strategic Management of IP (R)  2013 Teece Article CMR
5. The Shape of things to come. (R)  WSJ Article May 08
6. WIPO: Inventing the Future (RO)  WIPO Publication
7. WIPO: Looking Good (RO)  WIPO Publication
8. tools faces a formidable foe part A (R)  KSM Case IP & Entrepreneur
9. US Patent 5,913,629 to tools (S)  USPTO Publication
10. US Design Patent D431,598 to IDEO (S)  USPTO Publication
11. US Design Patent D402,690 to tools (S)  USPTO Publication
12. Innovation of Value Capture in Strawberries (R)  Kellogg Case
13. WIPO: Creative Expression (RO)  WIPO Publication
14. Copyright Cease and Desist letter January 2010 (S)  Joe Walsh attorney
15. Public Radio Broadcast on Famous Copyright music cases (S)  NPR 2010 available on Canvas
16. WIPO: Making a Mark (RO)  WIPO Publication
17. WIPO: IP & Franchising (S)  WIPO Publication
18. Dow Styrofoam ® cease and desist letter (S)  Open Source document
19. Opportunities at the Nexus of Semiotics and IP (S)  DMI Review article Spring 08
20. Annual Accounts The Walt Disney Company FY’16 (S)  Disney Investor Relations
21. Exemplary Disney Licensing Agreement(S)  Techagreements.com
22. AZ, Prilosec and Nexium (R)  Kellogg Case Study
23. AZ, Prilosec and Nexium case supplement (R)  Kellogg Case Supplement
24. Lyrica: A Case Study in Royalty Securitization (R)  Kellogg Student Case
26. Intangible Assets and IP Valuation(S)  CRTI Technical Note
28. Jumping Ship: Legal issues relating to employee Mobility (S)  American Bar Associations
ICM Course Case Pack Contents
Winter Quarter Offering 2018

1. Initial Course Syllabus v 2
2. Twelve ways to Innovate, Sawhney et al article (R)  SMR publication 2006
4. Toward the Strategic Management of IP (R)  2013 Teece Article CMR
5. The Shape of things to come. (R)  WSJ article May 08
6. tools faces a formidable foe part A (R)  KSM Case IP & Entrepreneur
7. AZ, Prilosec and Nexium (R)  Kellogg Case Study
8. AZ, Prilosec and Nexium case supplement (R)  Kellogg Case Supplement
9. Strawberry Case Study Analysis (R)  Kellogg Case Study